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Online cross-sectional survey to assess the mental health and coping strategies used by health professionals during covid-19 pandemic

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ABSTRACT

Background: COVID-19 poses a great challenge to the global health Care system all over the world. The contribution of your frontline worker toward defeating the pandemic is immeasurable on the other hand the health care professional also burdens up and faces disturbance in the mental and physical health. **Methodology:** Study was conducted with an objective to assess the mental health and coping strategies used by health professionals during COVID -19 Pandemic. A cross sectional survey design was used and sample was collected by Snowball sampling technique from different state and union territories of India. A total 106 healthcare professionals responded and enrolled themselves in the study. **Result:** In present study most of the participants 53(50.0%) reported moderate depression, 53(50.0%) moderate anxiety and 49 (46.2%) had mild stress. The data analysis reported that maximum numbers of participants had access to psycho-educational material like leaflet, brochure and books provided by the institution (60.4%) compared to (39.6%) who did not get this privilege, next, majority of the participant (76.4%) had availability of resources like internet, TV, newspaper, social media etc. More than half of the participants were able to avail counselling services (55.7%), psychotherapy (63.2%) etc. **Conclusion:** This pandemic has led to anxiety, stress, depression and other mental health issues among the people especially in health care profession. Mental health problems like stress, anxiety and depression can adversely affect the physical health of the health professionals as well as their competency to care for sick.

Keywords: Mental Health; Health Professionals; Coping Strategies, COVID-19.

1. INTRODUCTION

A flare-up of a worldwide pandemic causes dread and worry among numerous and supposedly impact the psychological health of nearly each and every person. The lives of affected people, their loved ones, and the general



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public are in question because of the sustained potential impacts of the 2019 novel coronavirus (COVID-2019 situation report 113 by WHO). Evidence suggests that there is a neuropsychiatric linkage between an outbreak related to of intense respiratory diseases and mental health. The individuals who are isolated may encounter psychological problems like weariness, outrage, and loneliness. The manifestations of the COVID-19, for example, cough and fever may also cause increasing psychological pain and nervousness among individuals because of the dread of getting this contagious viral infection. During the early period of SARS, many psychological problems like melancholy, anxiety, nervousness, suicidal tendency, and psychotic manifestations were accounted for (Xiang et al., 2020). Almost everyone is facing one or other kind of psychological stress during this pandemic. Experience from SARS and H1N1 pandemics underline that the mental strain on human services experts, who end up at the cutting edge of endeavours to suppress the outbreak, is noteworthy. In the early fast extension period of the SARS flare-up, like the present course of COVID-19 pandemic, human services experts revealed sentiments of extreme powerlessness, vulnerability and danger to life, close by substantial and intellectual side effects of uneasiness (Chong et al., 2004).

Healthcare experts managing COVID-19 are feeling the squeeze and experiencing high paces of mental grimness, resembling the situation during the SARS and H1N1 pandemics (Goulia et al., 2010). An exceptionally late examination among healthcare professionals in a tertiary clinic for COVID-19 in China, uncovered a high frequency of tension and stress issue among medical staff giving care at frontline (Huang et al., 2020), with nurses having a higher occurrence of anxiety as compared to doctors. Present situation in our hospitals seems to be in concordance with these reports. The interruption of routine clinical practice, the feeling of loss of control and the resulting apprehension of potential destabilization of the healthcare services, has incited tension and depression among healthcare professionals, a component which is a part and parcel of such times (Chen et al., 2020). Depression related with poor drug adherence which may lead to increased morbidity among older healthcare professionals with coexisting medical ailments. During pandemics health professional have to manage and care for the patients and at the same time they have to conquer their worry and anxiety regarding getting the infection so it is very much needed to assess their mental health during such a scenario and so that appropriate services can be provided at individual as well as national level (Huang et al., 2020).

2. MATERIALS AND METHODS

This was a cross-sectional, observational study carried out in among health professional of India from 5th May 2020 till 28th July '2020 at 4 PM IST. Sampling technique considered appropriate for the research project was snowball sampling technique. This was helpful in collecting the samples from different states and union territories of India. Eligibility criteria of participants included health professional who have age 18 years and more, able to understand English, willing to participate, health professionals who have internet connectivity, active email account/Whatsapp account were included and health professionals who are unwilling to take part in study, health professionals who don't have internet connectivity, smartphone, active email account or Whatsapp account were excluded.

Total 106 participants respond and enrolled themselves in the study. An online questionnaire was developed by using Google form, the link of the questionnaire was sent through emails, Whatsapp and other social media. The participants were encouraged to roll out the survey to as many people as possible. When the link was forwarded to health professionals, as part of the first item of the form, the participant had to give the informed consent and only after they consented to take the survey, health professional were permitted to go to the next item to fill out their demographic details. Then there were set of questions related to anxiety, stress, depression, coping strategies and mental health services and facilities provided to health care profession during COVID 19 to assess their mental health, coping strategies they used and services present in their facility to promote their mental health.

Tools for Data Collection

Standardized Questionnaire was used to assess selected parameters of mental health of health professionals regarding COVID 19 pandemic. For the assessment of mental health DASS 21 standardized tool was used to collect the data of stress, anxiety and depression. Self-reported Questionnaire to assess the access to various psychological resources regarding COVID 19 pandemic.

3. RESULT

A total of 106 Indian nationals belonging to health professional filled the Google form. Statistical analysis was done by SPSS 20 Version and Descriptive analysis was done in terms of mean and standard deviation with range for continuous variables and for ordinal and nominal variables frequency with percentage was used. Results of the study were estimated by computing the Mean and SD. All analyses were done with the help of SPSS Version 20. The participants belong to different states or union territories of India. Most of representative were Male (58.5%) and female (44%), educational qualification, Graduate (46.2%), Nursing officers

(61.3%), and maximum participant involved in COVID Patient care (63%) and other not involve in COVID patient care (43%) during lock down period. Figure 1 depicts frequency of health professional having mild, moderate, severe and extremely severe stress. Of all the health care professionals 52 (49.1%) had no stress; 49(46.2%) suffered mild stress and 5(4.7%) had moderate stress. No one had severe or extremely severe stress. Mean and SD in terms of level of stress came out to be 1.55 ± 0.58 .

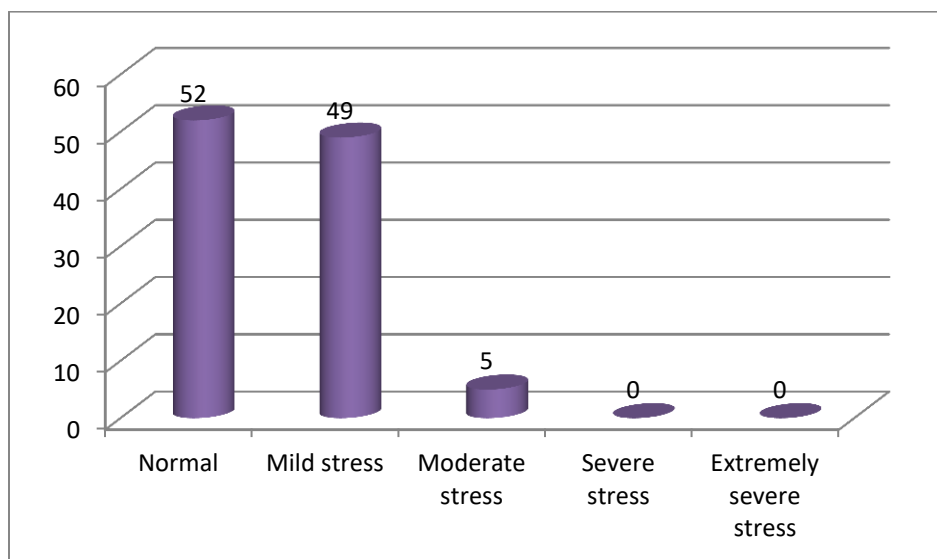


Figure 1 Frequency of Health Professionals in terms of Level of Stress

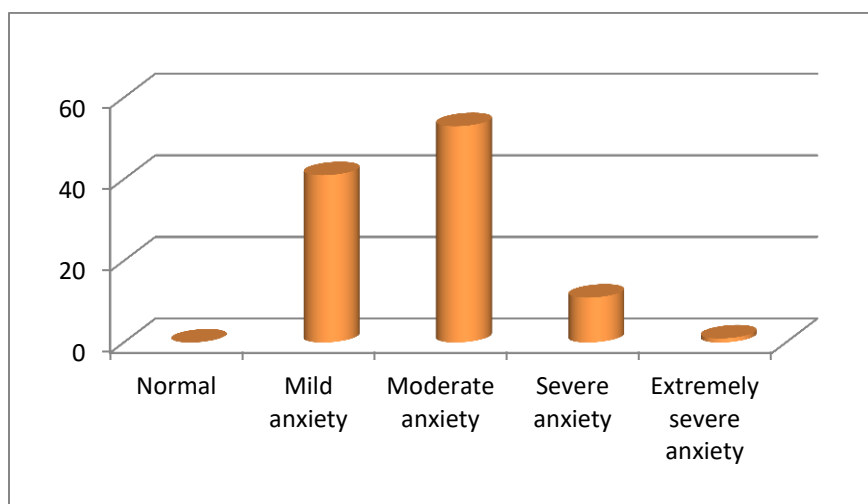


Figure 2 Frequency of Health Professionals in terms of Level of Stress.

Figure 2 shows the frequency of participants in terms of their level of anxiety. Of all the health care professionals 41(38.7%) had mild anxiety; 53(50.0%) suffered moderate anxiety; 11(10.4%) had severe anxiety; and 1(0.9%) suffered symptoms of extremely severe anxiety. No one's score matched normal level of anxiety. The Mean and SD of anxiety score was found to be 2.73 ± 0.68 . The bar graph in Fig 3 shows Level of depression among health care professionals. Mild depression was found in 44(42.4%) health professionals; Moderate depression in 51(48.1%); severe depression in 10(9.0%) and extremely severe depression was found in 1(0.9%) of health professionals. Mean and SD of depression score was 2.35 ± 0.84 .

Next, assessment of mental health services available for health care professionals was done and data reported that a large number of participants got educational materials like leaflet; brochure and books from the institution i.e., 60.4% and 39.6% did not get this facility. Next, majority of the participant i.e., 76.4% had access to resources like internet, TV, newspaper, social media etc. Majority of them were able to avail counselling services i.e., 55.7% and 63.2% had facility of psychotherapy. Fig 4 depicts data regarding that various coping strategies used by health care personnel during COVID 19. Out of 106, 95 (89.6%) of healthcare professionals regularly updated their knowledge about COVID 19. 95 (89.6%) followed strict self-protection measures such as hand

washing, use of face mask and other PPE. 98 (92.5%) chose a more isolated mode of travel, such as self-driving and avoiding public transportation; 89 (84.3%) involved in leisure activities during free time and 101 (95.3%) felt and expressed gratitude for all the things they have including family, friends and relatives etc.

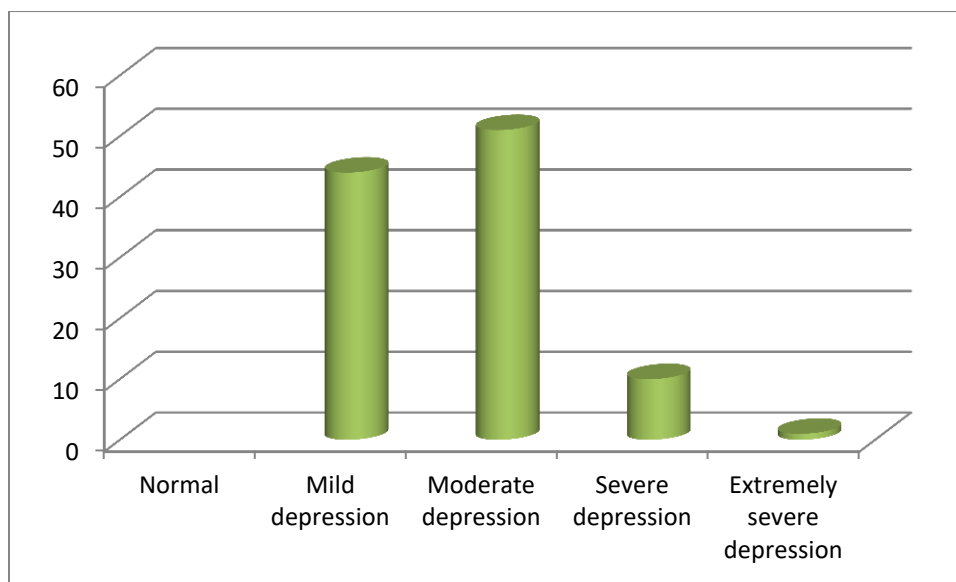


Figure 3 Frequency of Health Professionals in terms of Level of Depression

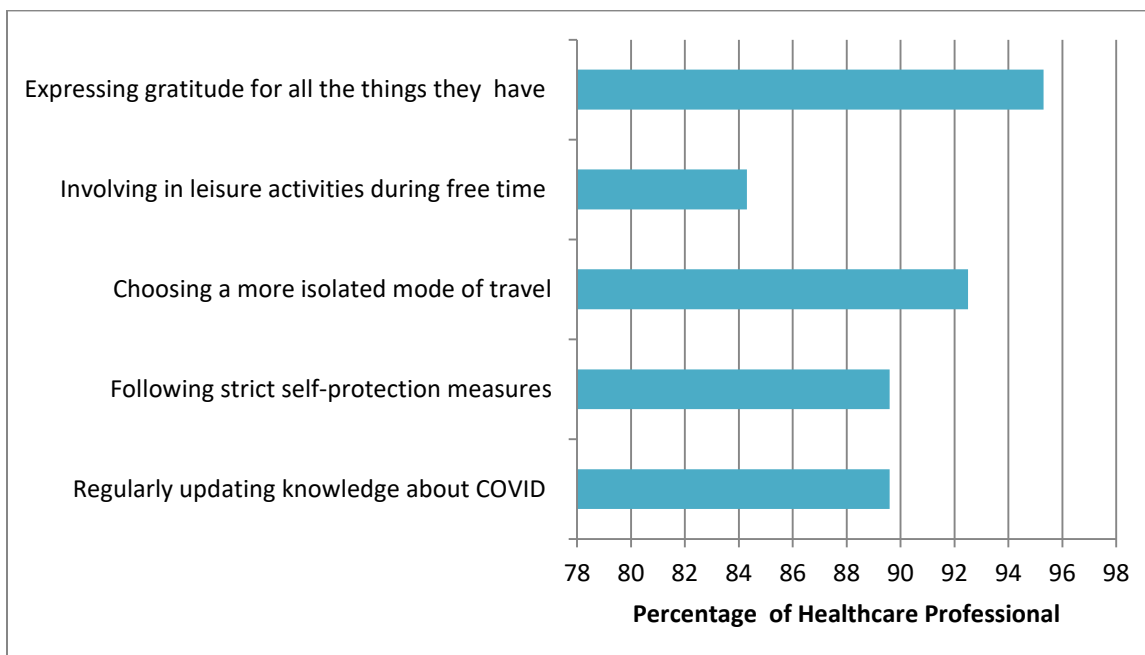


Figure 4 Percentage of Healthcare Professional Using Various Coping Strategies

4. DISCUSSION

The present study aimed to assess mental health and coping strategies used by health professionals during COVID -19 Pandemic among health professional in India. This survey was started during the 3rd locked in India when the cases were arising in number day by day. In present study most of the participants were graduate (46.2%) this finding consists with the study conducted by Kaustav and Moumita (2020) where they found that most of participant were Hindu (96.8%) and graduate (56.2%). The data showed that most of the participant was graduate and above and half of them were female (58.4%) and male (48%) these finding similar with the study result conducted by Roy et al., (2020) where they found that more than 90% of population was having educational level of graduation and among the participants, 51.2 % were females and 48.6% were males.

In present study most of the participant 53 (50.0%) had moderate depression, 53(50.0%) had moderate anxiety and 49 (46.2%) were had mild stress and the study findings are similar with the findings of the research conducted by Giusti et al., (2020) in which the long term Psychological Effect of the COVID-19 Outbreak on Health Professionals was assessed. In this cross-sectional study 88 (26.8%) had clinical levels of depression, 103 (31.3%) of health professionals had anxiety, 113 (34.3%) reported stress. In another study conducted by Eltahier et al., (2020) to assess the Psychological impact of COVID-19 pandemic on medical students in Sudan (2020), more than 40.5% of the study participants were free of depression while more than 13% had extremely severe depression. On the other hand, only 4.4% had extremely severe stress. However, anxiety ranked the higher numbers with 23% of medical students suffered from extremely severe anxiety.

5. CONCLUSION

COVID-19 has a very high psychological impact upon health professional. This study suggests that health professional may have mental health problems ranging from mild stress to moderate anxiety and depression due to COVID 19. Effective measures such as: strengthening health care facilities towards promotion of mental health by providing basic infrastructure and professional services for the patients as well as the health care professionals.

Ethical Consideration

Ethical Clearance was taken from institutional ethical committee of SGT University. A consent form was got signed by the participants after providing full information. The Participants were given full autonomy to take decision regarding their participation in the research. Ethical clearance number for this research project is SGT/FON 2020_5.

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We thank the participants who were all contributed samples to the study.

Author Contributions

Details of contribution of each authors regards manuscript work & production.

Prof. Raman Deep: Study conception and design, data collection, analysis and interpretation of results, and manuscript preparation and revised it critically for important intellectual content.

Ms. Anamika Gautam has been actively involved in data analysis and interpretation of results and manuscript preparation.

Ms. Poonam Ahlawat: Data analysis and Manuscript preparation

Ms. Ruchika Duggal Choudhry: Data Interpretation and Revisions in manuscript.

Ms. Jyoti: Review of literature and Data entry and analysis.

Ms. Arti: Review of literature, data analysis and interpretation.

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Conflict of Interest

The authors declare that there are no conflicts of interests.

Data and materials availability

All data associated with this study are presented in the paper.

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